

IN THE CLAIMS:

1. A method for rendering a graphical user interface (GUI), comprising:
providing for the representation of the GUI as a set of controls wherein the controls are organized in a logical hierarchy and wherein each one of the controls has an entitlement that can be used to determine whether or not the control is visible when rendered;
traversing the representation, wherein the traversing comprises:
 associating a theme with a first control in the set of controls;
 rendering the first control according to the theme;
 rendering any descendents of the first control according to the theme;
wherein any descendents of the first control can override the theme; and
wherein one of the set of controls can communicate with another of the set of controls.
2. The method of claim 1 wherein:
one of the set of controls can respond to an event raised by another of the set of controls.
3. The method of claim 1 wherein:
a control can have an interchangeable persistence mechanism.
4. The method of claim 1 wherein:
a control can have an interchangeable rendering mechanism.
5. The method of claim 1, further comprising:
accepting a request.
6. The method of claim 5 wherein:
the request in a hypertext transfer protocol (HTTP) request.
7. The method of claim 5 wherein:

the request originates from a Web browser.

8. The method of claim 1, further comprising:
generating a response.
9. The method of claim 1 wherein:
an control can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
10. The method of claim 1 wherein:
associating the theme with the first control can occur when the first control is rendered.
11. The method of claim 1 wherein:
the first control inherits the theme from a parent control.
12. The method of claim 1 wherein:
the theme specifies the appearance and/or functioning of an control in the GUI.
13. The method of claim 1 wherein:
rendering the first control according to the theme can be accomplished in parallel with rendering of other controls.
14. The method of claim 1 wherein:
the theme can be specified in whole or in part by a properties file.
15. The method of claim 14 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup

Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.

16. The method of claim 14 wherein:
the properties file can specify at least one image.
17. The method of claim 1 wherein:
the GUI is part of a portal on the World Wide Web.
18. A method for rendering a graphical user interface (GUI), comprising:
accepting a request;
mapping the request to a set of controls that represent the GUI, and wherein
the controls are organized in a logical hierarchy and wherein each one of the controls
has an entitlement that can be used to determine whether or not the control is visible
when rendered;
traversing the representation, wherein the traversing comprises:
associating a theme with a first control in the set of controls;
rendering the first control according to the theme;
rendering any descendents of the first control according to the theme;
and
wherein any descendents of the first control can override the theme.
19. The method of claim 18 wherein:
the request in a hypertext transfer protocol (HTTP) request.
20. The method of claim 18 wherein:
the request originates from a Web browser.
21. The method of claim 18, further comprising:
generating a response.
22. The method of claim 1 wherein:

one of the set of controls can respond to an event raised by another of the set of controls.

23. The method of claim 1 wherein:
a control can have an interchangeable persistence mechanism.
24. The method of claim 1 wherein:
a control can have an interchangeable rendering mechanism.
25. The method of claim 18 wherein:
an control can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
26. The method of claim 18 wherein:
associating a theme with the first control can occur when the first control is rendered.
27. The method of claim 18 wherein:
the first control inherits the theme from a parent control.
28. The method of claim 18 wherein:
the theme specifies the appearance and/or functioning of an control in the GUI.
29. The method of claim 18 wherein:
rendering the first control according to the theme can be accomplished in parallel with rendering of other controls.
30. The method of claim 18 wherein:
the theme can be specified in whole or in part by a properties file.

31. The method of claim 30 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
32. The method of claim 30 wherein:
the properties file can specify at least one image.
33. The method of claim 18 wherein:
the GUI is part of a portal on the World Wide Web.
34. A method for rendering a graphical user interface (GUI), comprising:
providing for the representation of the GUI as a plurality of controls wherein the controls are organized in a logical hierarchy and wherein each one of the controls has an entitlement that can be used to determine whether or not the control is visible when rendered;
traversing the representation, wherein the traversing comprises:
 associating a first theme with a first control in the plurality of controls;
 rendering the first control according to the first theme;
 associating a second theme with a second control in the plurality of controls;
 rendering the second control according to the second theme; and
wherein the second control is a descendant of the first control.
35. The method of claim 34, further comprising:
accepting a request.
36. The method of claim 35 wherein:
the request in a hypertext transfer protocol (HTTP) request.

37. The method of claim 35 wherein:
the request originates from a Web browser.
38. The method of claim 34, further comprising:
generating a response.
39. The method of claim 1 wherein:
the first control can respond to an event raised by the second control.
40. The method of claim 1 wherein:
an control can have an interchangeable persistence mechanism.
41. The method of claim 1 wherein:
an control can have an interchangeable rendering mechanism.
42. The method of claim 34 wherein:
an control can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
43. The method of claim 34 wherein:
the first control inherits the first theme from a parent control.
44. The method of claim 34 wherein:
the first theme specifies the appearance and/or functioning of the first control in the GUI.
45. The method of claim 34 wherein:
the rendering the first control can be accomplished in parallel with the rendering of the second control.

46. The method of claim 34 wherein:
a theme can be specified in whole or in part by a properties file.
47. The method of claim 46 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
48. The method of claim 46 wherein:
the properties file can specify at least one image.
49. The method of claim 34 wherein:
the GUI is part of a portal on the World Wide Web.
50. A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:
provide for the representation of the GUI as a set of controls wherein the controls are organized in a logical hierarchy and wherein each one of the controls has an entitlement that can be used to determine whether or not the control is visible when rendered;
traverse the representation, wherein the traversing comprises instructions to cause the system to:
associate theme with a first control in the set of controls;
render the first control according to the theme;
render any descendents of the first control according to the theme;
wherein any descendents of the first control can override the theme; and
wherein one of the set of controls can communicate with another of the set of controls.
51. The machine readable medium of claim 50 wherein:

one of the set of controls can respond to an event raised by another of the set of controls.

52. The machine readable medium of claim 50 wherein:
a control can have an interchangeable persistence mechanism.
53. The machine readable medium of claim 50 wherein:
a control can have an interchangeable rendering mechanism.
54. The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:
accept a request.
55. The machine readable medium of claim 54 wherein:
the request in a hypertext transfer protocol (HTTP) request.
56. The machine readable medium of claim 54 wherein:
the request originates from a Web browser.
57. The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:
generate a response.
58. The machine readable medium of claim 50 wherein:
an control can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
59. The machine readable medium of claim 50 wherein:
associating the theme with the first control can occur when the first control is rendered.

60. The machine readable medium of claim 50 wherein:
the first control inherits the theme from a parent control.
61. The machine readable medium of claim 50 wherein:
the theme specifies the appearance and/or functioning of an control in the GUI.
62. The machine readable medium of claim 50 wherein:
rendering the first control according to the theme can be accomplished in parallel with rendering of other controls.
63. The machine readable medium of claim 50 wherein:
the theme can be specified in whole or in part by a properties file.
64. The machine readable medium of claim 63 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
65. The machine readable medium of claim 63 wherein:
the properties file can specify at least one image.
66. The machine readable medium of claim 50 wherein:
the GUI is part of a portal on the World Wide Web.
67. A computer data signal embodied in a transmission medium, comprising:
a code segment including instructions to provide for the representation of the GUI as a set of controls wherein the controls are organized in a logical hierarchy and wherein each one of the controls has an entitlement that can be used to determine whether or not the control is visible when rendered;

a code segment including instructions to traverse the representation comprising:

- a code segment including instructions to associate theme with a first control in the set of controls;

- a code segment including instructions to render the first control according to the theme;

- a code segment including instructions to render any descendents of the first control according to the theme;

wherein any descendents of the first control can override the theme; and

wherein one of the set of controls can communicate with another of the set of controls.